

HOWARD SOIL CONSERVATION DISTRICT

H 03

5758200

SDP-89-75

### CONSTRUCTION SPECIFICATIONS

- 1. Stone Size Use 2" stone, or reclaimed or recycled concrete equivalent. 2. Length - As required, but not less than 50 feet (except on a single resi-
- dence lot where a 30 foot minimum length would apply). Thickness - Not less than six (6) inches.
- 4. Width Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- 5. Filter Cloth Will be placed over the entire area prior to placing of stone Filter will not be required on a single family residence lot.
- 6. Surface Water All surface water flowing or diverted toward construction entrances shall be piped across the entrance If piping is impractical,
- a mountable berm with 5.1 slopes will be permitted. 7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment All sediment spilled, dropped, washed or tracked onto public rights-of-way must
- be removed immediately. 8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping
- 9. Periodic inspection and needed maintenance shall be provided after each rain

SILT FENCE HOW ATRENGT , TO I TENE HE HE WOVEN WIRE FENCE IMM 41/2 GAUGE MAY 6 MESH 36 MIN FENCE POSTS OR VEN MIN 16 INTO GROUND HEAN COM DRAW DR PLESPEC IE VIEW HIGH STRENGTH POLYPRIAPY LEVE NE WOVEN WIRE FENCE 4 A MN MAX 6 MEST TEACHE WE F FR TH VERT ) M \ JNDISTURBED GROUND - F.ON EMBELFL H H MIN B NT GRAN STANDARD SYMBO. 5 ---- S SE TIN The state of the same ~ 1 1/2 "x 1 1/4" Min (Actual) ALT ARTE X 54 5 3 5 4 A A My The Alexander BY FACTORE OF BE THE ATTOR WE WE SE I PROPI ENE NETTINE THE EACH OTHER THE HALL BE WEN LIPPET B -> NOHE WY F DEL ", NTENWALL WALL BE TO AME I NE DET AND MATER AL REMAIT, MAIL BULLES DEVELOR IN THE 1 FEA

HOWARD PEROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT al requirements Signature EDFLOVED) HOWARD COL U.S. SOIL CONSERVATION SERVICE THIS DEVELOPMENT PLAN IS APPROVED 15.0.76 CHIEF DIVISION OF COMMUNITY PLANNINGDATE FOR SOIL EROSION AND SEDIMENT & LAND DEVELOPMENT CONTROL BY HOWARD COUNTY SOIL IPPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, CONSERVATION DASTRICT. STORM DRAINAGE SYSTEMS AND PUBLIC RUADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 11-27-88 Aun Approved PATE Wiesem & Roly 12-6-88

DIRECTOR

HIEF BUREAU OF ENGINEERING

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FUTURE DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED Seedbed Preparation Loosen upper 3 Inche () suit by raking, discing or other acceptable means before seeding

Soil Amendments. IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES.

1 ) Preferred - Appl. 2 cons per scre d. omitic limestone (92 lbs /1080 square ft ) and 600 lbs per acrr 10-10-10 fc.+.lizer (14 lbs '1000 sq ft ) before seeding. Harrow or disc into uppe three inches of soil. At time of seeding, apply 400 lbs per ucie 36-60' areaform fertilizer (91bs /1000 sq ft)

2 / Acceptable - Apply 2 tons wer acre to the linestone 792 lbs /1000 sq ft and 1000 lbs pe acre .6-10 10 to .6 13 lbs /1000 sq ft before seeding Harrow or clift for the es of sell

, all August I thru October 15, Seeding - For the principles to child seed with 60 lbs per and a record of Kentuck 31 Tail Fescue For the period May I this July 41, seer with (Class Kentucky 31 Tall Fescue per acre and 2 lbs per acre 05 lbs 100 . . . of weeping lovegrass During the period of October 15 throse bucing 1, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as scon as possible in the spring Option (2) Use sod Ortion (3 Seed at Las here Kentucky 31 Tall Feacue and mulch with 2 tons are sed of or a set

Mulching - Apply 15 to 2 cons per acre (/) 20 and 1000 sq ft of unrotted small grain straw immed ately ofter seed by order mulch immediately after application using mulch anchoring too. 5. 2. gail 5 per acre 5 gal /1000 sq fit / of emulsified asphalt on fint irous in lopes 8 feet or higher, yse 348 gallons per acre (8 gal 1 mo sq ft ) a chemin

Maintenance - Inspect al. Beened Sira, in the middle repairs, replacements and resecdings

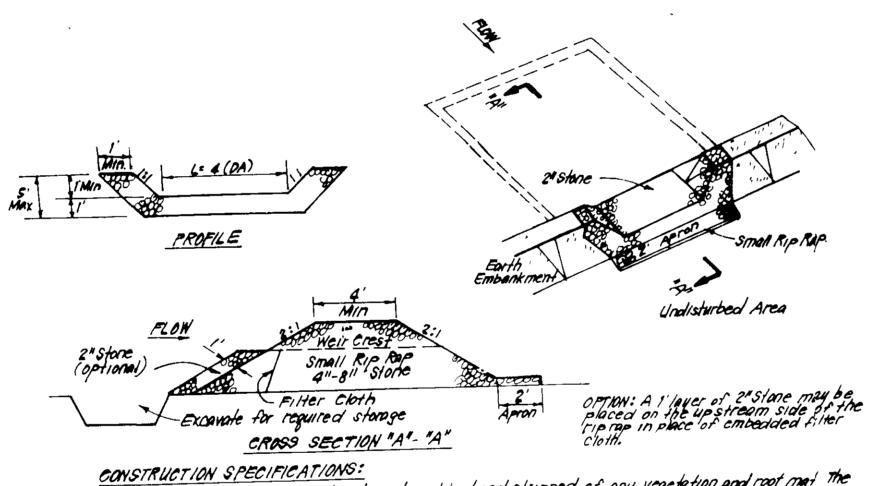
APPLY TO GRADED OR CLEARED AREA LIKELY TO BE REDISTURBED WHERE A STORT-TERM VEGETATIVE COVER IS NEEDED Seedbed Preparation Loosen upper 3 inches ( 3011 %, raking, discing or other acceptable means before seeding

Soil Amendments Appl, 60 lbs per more lo-1 " fertilizer 14 lbs /1000 sq ft

Seeding For periods March to April of and From August 15 thru November 15, seed with 2½ bu per air of a huality 12 h, 1000 sq ft , For the period May I thru August 14, seed into a too promote of weening lovegrass ( 07 lbs / 1000 sq ft ) For the period November 10 thr Fitruary 28 protect site by applying 2 tons per near of warranche and sir vince; and seed as soon as possible in the spring, or use so

Mulching Apply is to ? 'and per ice " . \_ ibc iCOO sq,ft , of unrotted small grain straw immediatel, after seeding tuber clob immediately after application using mulch anchoring tool or 218 gil per acre 2 gal /1000 sq ft ) of emulsified asphalt on flat areas. On slope , I ft or I chor, use 348 gal per acre (8 gal /

1000 sq.ft , for anchuring REFER TO THE 1983 MD. STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED



I. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat the sized stones, rocks organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.

All cut and fill slopes shall be 2:1 or flatter.

4. The stone used in the outlet shall be small rip rap 4"-8" along with I thickness of 2" aggregate placed

4. The storic used in the outlet simple of small rip rap 4-8" along with I thickness of 2" aggregate pla on the up-grade side on the simple rip rap or embedded filter cloth in the rip rap 5 Sediment shall be removed and trap restored to its orginal dimensions when the sediment has accumulated to 12 the design depth of the trap accumulated to 12 the design depth of the trap of the structure shall be inspected after each rain and repairs made as needed.

7 Construction operations shall be corned out in such a manner than erosion and water pollution is 8 The structure shall be removed and the area stabilized when the drainage area has been properly

STONE OUTLET SEDIMENT TRAP (S.O.ST.) ST.V. **APPROVED** 

DIVISION of COMMUNITY PLANNING & LAND DEVELOPMENT HOWARD COUN Y. M. RYLAND DATE 11-17-88

DEVELOPER S/BUILDER'S CERTIFICATE

AT A THAT A\_ TO - DEN NO AND JUN TROUBLE NG TO THIS PLAN IF DEVELOPMENT AND DIAN FUR EROSION OF EDIMEN IN TRUL AND THAT ALL HESPONS BLF PHADINIH TO JED N HE MITTER TON PROJECT WILL HAVE A FREFICALE & ATTENDANCE A DEPT IF NO HAR COOK TO APPROVED THE MU PROGRAM FOR HE DATKUL IF THE MENT AND ERUD UN HET ME BY IN IS THE PROOF (TO A 3) AUTHORIZE PER DEIC IN DITE ASPECTIVE OF HOWARD OUNTY DO CONSERVATION DITE TO RITHER A TYDROTEC ARENT A

STANDARD AND SPECIFICATIONS VEGETATIVE STABILIZATION WITH SOD

## SPECIFICATIONS

- l Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
- 2 Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall exclude top growth and thatch
- 3 Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section
- 4 Individual pieces of sod shall be cut to the suppliers width and length Maximum allowable deviation from standard widths and lengths shall be 5 percent Broken pads and torn or uneven ends wil. not be acceptable
- 5 Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival
- 6 Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.

#### I Site Preparation

Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under B, below

- A Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations
- Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime
- All areas receiving sod shall be uniformily fine graded Hard-packed earth shall be scarefied prior to placement of sod.

# SEDIMENT CONTROL NOTES

- 1) A "Inlaum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All Vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 HARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within' a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3.1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec 51) sod (Sec 54), temporary seeding (Sec. 50) and mulching (Sec 52 ) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germinition and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector
- 7) Site Analysis: 032 Acres Total Area of Site Area Disturbed 020 Acres Area to be roofed or paved \_\_\_\_\_ & \_\_\_ Acres Area to be vegetatively stabilized 012 Acres
  Total Cut 100 Cu yds Total Fill 100 Cu yds Offsite waste/borrow area location
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment control must be provided, if deemed necessary by the Howard County DPW sediment control Inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this
- initial approval by the inspection agency is made. 11) If houses are to be constructed on an "As-Sold" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
- 12) All pipes to be blocked at the end of each day (see detail below).
- 13) The total amount of straw bale dikes/silt fence equals \_\_\_\_240\_ LF.

ENGINEER'S CERTIFICATE ALB ERTER THAT THE FIAN FOR ERUSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORK ABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE TE UNDITIONS AND THAT IT WAS PREPARED IN ACCORD ANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSTRICT

11-21-88

1) Refer to "1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for standard details and detailed specifications of each practice specified herein

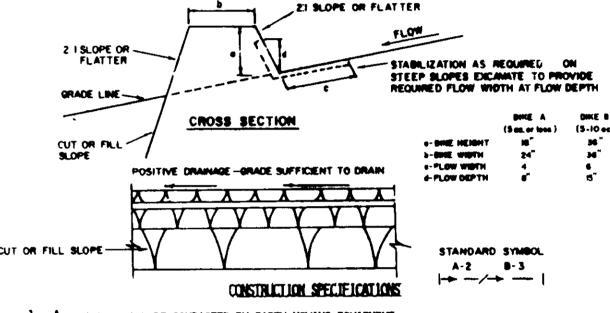
GENERAL NOTES

- 2) with the approval of the sediment control inspector, minor field adjust ments can and well be made to insure the control of any sediment Change. in sediment control practices require prior approval of the sediment County Soil Conservation District. control inspector and the
- 3) At the end of each working day, all sediment control practices will be inspected and left in operational condition
- 4) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within a ) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3 1) and b I fourteen days as to all other disturbed or graded areas on the project site
- 5) Any change to the grading proposed on this plan requires re-submission County Soil Conservation District for approval
- 6) Dust control will be provided for all disturbed areas Refer to 1983 Haryland Standards and Specifications for Soil Erosion and Sediment Control, pp 6201 and 62 02 for acceptable methods and specifications for
- 7) Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the County Soil Conservation District prior to the initiation of the change
- 8) Excess cut or borrow material shall go to or come from, respectively, a site with an approved sediment control plan

The following item may be used as applicable

9) Refer to "Maryland's Guidelines to Waterway Construction" by the Water Resources Administration (WRA), dated January, 1986 for standard details and detailed specifications of each practice specified herein for waterway construction

> EARTH DIKE net to scale



- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESTRED TO FACILITATE
- CROSSING BY CONSTRUCTION TRAFFIC. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE CUTLET. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. PURDEF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT
- ADEQUATELY STABILIZED, STABILIZED, STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER

FLOW CHANNEL STABILIZATION

TYPE OF IREALMENT	CHANNEL	DIKE A	DIKE B
1	.5-3,0%	SEED AND STRAW MULCH	SEED AND STRAIN MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSION; SOD; 2" STONE
3	5 1-8.0X	SEED WITH JUTE, OR SOD; 2" STONE	NED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

- A. Stoke to be 2 inch stone, or recycled concrete equivalent, in a layer at least 3
- INCHES IN THICKNESS AND BE PRESSED INTO THE SO'L WITH CONSTRUCTION EQUIPMENT.

  B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO
- THE SOIL.

  C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

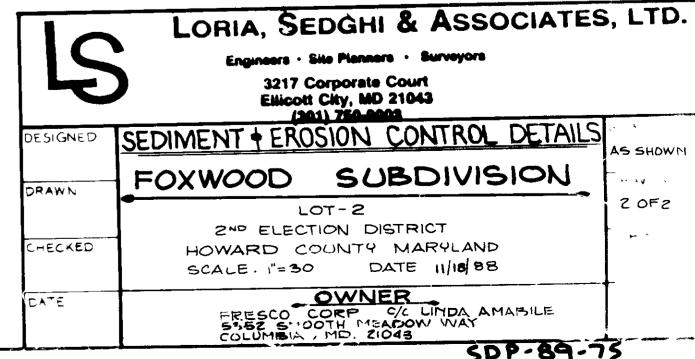
  PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE NO SCALE

## CONSTRUCTION SEQUENCE

- 1- Obtain grading permit.
- 2- Install sediment & erosion control measures.
- 3- Clear and rough grade site.
- 4- Construct houses and driveways.
- 5- Fine grade and stabilize all disturbed areas in accordance with standards & specs.
- 6- Remove sediment & erosion control measures once

all areas draining to them are stabilized.



SDP-89-75